

# LAGRAMEZ Hamza

ENGINEERING STUDENT · DATA SCIENCE ·

LAAYOUNE, MOROCCO

(+212) 653732009 | [hlagamez@insea.ac.ma](mailto:hlagramez@insea.ac.ma)



[/in/hamzalagramez](#)



[/hamzalgz](#)



[kaggle/hamzalgz](#)

## Summary

21-year-old Moroccan college student. Passionate about data science, machine learning, deep learning. Experience in leading projects and working effectively within a team. Interested in devising a better problem-solving method for challenging tasks and learning new technologies. Currently looking for a 6-month end-of-studies internship starting from January 2022.

## Education

2019 National Institute of Statistics and Applied Economics, DATA Science

Rabat, Maroc

2017 Preparatory Classes Lissane Eddine Ibn AL khatib, MATHS, Physics AND Engineering

Laayoune, Maroc

## Work Experience

### Euro med university of fez

Fes, Morocco

#### Computer Vision in Agriculture: plant diseases

July. 2021 - Aug 2021

- Doing feature engineering, image pre-processing, data augmentation, transfer learning, and fine-tuning of pre-existing ImageNet model from Caffe.
- Worked on OpenCV and PIL libraries for Object tracking and Color detection.
- Built a classification model using Python, TensorFlow and Keras to train the seven architectures chosen for this project (VGG16, ResNet152, inceptionV3, Xception, inceptionResNetV2, EfficientNetB7, MobileNetV2).
- Created bounding boxes (bbox) using LabelImg server based on Pascal VOC format and XML files and using Intersection over Union for measure the performance of bounding box.
- Built an Object Detection model using two pipelines:
  - Region Convolutional Neural Network (R-CNN): getting 96% in classification problem and 70% in bbox problem.
  - Faster R-CNN: getting 96% in classification problem and 52% in bbox problem.
- Deployment to Drone CI for using drone to capture images and detect all the plant diseases.

### Euro med university of fez

Fes, Morocco

#### Product Recommendation System

July. 2021 - Aug 2021

- Scraped data from e-commerce website. Used: Selenium, BeautifulSoup.
- Developed a model to recommend the best products for the user using K-Means, KNN algorithms. Used Scikit-Learn.
- developed a Dashboard for visualization. Used: Dash, Plotly.

## Projects

### Created Web application for Sentiment analysis in tweets using web scraping

April. 2021

- Doing pre-processing. Used Regex, NLTK
- Developed a Bi-directional Recurrent Neural Network with repeat vector and Dense layer that takes a tweet as input which is padded during pre-processing to classify either positive or negative.
- Classified all the tweets in two classes either positive or negative using a dataset consisting of 10000 tweets and training by
  - Using Naïve-Bayes classifier for predicting the classes: getting an accuracy of 75%.
  - Using Bert transformer for predicting the classes: getting an accuracy of 89%.
- Used: TensorFlow, Keras, Scikit-Learn.
- Extract new tweets from twitter. Used Selenium
- Manage, index and stock scraped data in MongoDB atlas. Used pymongo
- built a web application to make the user enter the URL for scraping and processing. Used: Flask, HTML, CSS, JavaScript.
- developed a Dashboard for visualization. Used: Dash, Plotly.

### Data Pipeline with Apache Airflow

June. 2021

- used Microsoft Azure to work with ubuntu in virtual machine and container workloads and connected with putty.
- used Apache Airflow's approach to representing data pipelines as DAGs and automating tasks.
- Manage, index and stock data in PgAdmin. Used: PostgreSQL.
- developed a Dashboard for visualization. Used: PowerBI.

### Conception and implementation of a GIS under R for the analysis of covid in the world

Mars, 2021

- Spatial and temporal analysis of the distribution of death rates of total and new cases of coronavirus by country.  
Used: QGIS, R.
- developed a Dashboard for visualization. Used: R, Shiny.

## Certifications

---

- 2020 Getting Started with SAS Programming, Certifications.  
Currently IBM Big Data Engineer 2021.  
2021 HCIA-Big Data, Huawei. Certifications.  
2021 DeepLearning.AI, Certification.  
2020 introduction to object-oriented programming (Java), Certification.

## Hackathons

---

- 2020 Umoja Hack Morocco: AIOX Sentiment Analysis Challenge by Umoja Hack Africa.  
2021 Umoja Hack Africa: Senty - Delivery Rider Response Challenge (INTERMEDIATE) by Umoja Hack Africa.

## Skills

---

Programming	Python, R, SAS, Scala, LISP, PROLOG, Java, SQL, Sage Math, C/C++, Sparql.
Mathematics	Stochastic process, Waiting Line and Queuing Theory, Linear and no Linear Programming, discrete models, Probabilities, Graph theory.
Statistics	Time series, Statistical inference, GLM, Dimension reduction (ACP, ACM, AFC).
MLOPs	Docker, MLFlow, Kubernetes, Kubeflow, CI/CD.
DevOPs	AWS, AZURE, GIT, Apache Jana, Gephi, protege, Apache Airflow, MAVEN, Apache Ant.
Big Data	Hadoop, Spark, Kafka, BIG Query
Data Base	Oracle, MySQL, PostgreSQL, MongoDB, Graph DB, SQLite.
Security and Blockchain	Cryptography, firewall, kali, ubuntu, Solidity.
Other Skill/tools	Data Warehouse, Business Intelligence & Knowledge Discovery, AI, Data Architecture, Data Visualization (Tableau and power BI), GIS, ontology.
Languages	English, French, Arabic.